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An Acadian Plant Sanctuary

Merritt L. Fernald



ISSUED BY
THE WILD GARDENS OF ACADIA
BAR HARBOR, MAINE

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Wild flowers in national park woods upon Mount Desert Island. The plant is *Pyrola elliptica*

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"There are few things in the course of journeys which one recalls with more pleasure than parks and gardens which combine opportunities for studying the flora of a country with the enjoyment of natural beauty."

JAMES BRYCE.

M. L. FERNALD

Professor of Botany at Harvard University

Curator of the Gray Herbarium

Former President New England Botanical Society

One of the commonest sights in the wilder districts of our once densely timbered eastern States is vast stretches of burned and wasted land, desolate and unproductive.

Now, nearly all the native plants which originally inhabited these desolated areas have a peculiarly modified root-structure which renders it impossible for them to grow in any soil other than the moist and spongelike forest humus, to life in which their whole development has been shaped for ages past.

The immediate effect, then, of the removal of the forest and burning over of its leafy floor is the complete annihilation of countless lesser plants, wild flowers and ferns in hundreds of beautiful and interesting species which give the primeval forest of the region its great natural charm.

The evil does not stop, however, with the destruction of the native woods and wild flowers and the gradually ac-

cumulated wealth of woodland soil. Nature's anciently established equilibrium is disturbed at its foundation, and the native insects, associated from the beginning with the native flowering plants and rarely hurtful to the farmer, perish largely with the vegetation and the soil that they have lived and bred upon, leaving the field clear for the invasion of destructive foreign species.

The birds, in turn, who feed upon the native insects and control the balance of insect increase, no longer find their former food supply or shelter, and either vanish from the wasted region or continue in diminished numbers.

Much of the land thus wrecked by axe and fire in the well-watered eastern portion of our country must ultimately be reclothed with forest as its best economic use, and none can be so well adapted to it as that which nature clothed it with originally, rich alike in beauty and in valuable species. But it will be long before such land again develops the humus covering the native forest flora and its associated life require, and unless prompt measures are taken to conserve them till it does the task of resettling future forests with the rich, indigenous life that is the region's own will have become impossible.

It has, therefore, long seemed to the writer that the only way in which to conserve for the enjoyment and study of future generations any portions of our country which by good fortune still remain in their natural condition is the reservation of appropriate tracts, such as may properly be set aside, with the explicit stipulation that they be left essentially in their natural state.

This brings me to the crucial point: Where is the best spot, if only a single spot can be thus preserved, for the perfection of this ideal? A detailed knowledge of the geography, the flora, and to some extent the soil conditions of eastern North America, acquired through twenty-five years of active exploration in New England, the Maritime Provinces, Quebec, Newfoundland, and Labra-



Primeval hemlocks growing on lands belonging to The Wild Gardens of Acadia which form one of the approaches from Bar Harbor to the national park -

dor, naturally brings several regions to mind; but as a single area within the possible reach of this hope, the Island of Mount Desert, with its adjacent islets and headlands, stands out as offering the greatest natural diversity.

This comes obviously from the fact that Mount Desert is the highest land on the Atlantic coast of North America south of the Gulf of St. Lawrence, its boldly sculptured hills, which rise directly from the water's edge, attaining altitudes of almost montane character.

The exposed headlands and bogs of the Mount Desert region support between two and three hundred species of plants which are typical of the arctic, subarctic, and Hudsonian regions of America, and which on the eastern coast of New England or the alpine summits of the White Mountains reach their actual or approximate southern limits—such plants, for instance, as the Black Crowberry, *Empetrum nigrum*; the Baked-apple Berry, *Rubus Chamaemorus*; the Creeping Juniper, *Juniperus horizontalis*; the Greenland Sandwort, *Arenaria groenlandica*; the Rose-root, *Sedum roseum*; and the Banksian Pine, *Pinus Banksiana*.

But the flora of the Mount Desert region is not by any means entirely arctic or subarctic. There we find essentially all the common plants of the Canadian zone, and mingling with them in sheltered nooks and meadows or on warm slopes, many scores of plants which reach their extreme northern or northeastern limit on Mount Desert or the immediate coast—such plants as the Pitch Pine, *Pinus rigida*; the Bear Oak, *Quercus ilicifolia*; the Sweet Pepperbush, *Clethra alnifolia*; the Swamp Loosestrife, *Decodon verticillatus*; the Meadow Beauty, *Rhexia virginica*; and the Maple-leaved Viburnum, *Viburnum acerifolium*.

This extraordinary accumulation within one small area of the typical plants of the arctic realm, of the Canadian zone, and in many cases of the southern coastal plain,

cannot be duplicated at any point known to the writer.

In its rock and soil composition Mount Desert offers a most attractive possibility. Much of the Island consists of granite rocks, with the consequent acid soils that these give rise to; but the soils derived from some of the metamorphic series, slates and shales, are, judging from the native vegetation, of a basic or even limy character, and many of the swamps are covered not with the heath thickets of acid bogs but with the characteristic grasses and sedges of sweet areas.

A number of the Island plants, indeed, sometimes of rock habitats, sometimes of swamps, suggest themselves at once as species which, in their wide range, show a strong preference for sweet or limy habitats: the Shrubby Cinquefoil, *Potentilla fruticosa*; the Showy Lady's Slipper, *Cypripedium hirsutum*; the Hemlock Parsley, *Conioselinum chinense*, are instances.

These features alone are sufficient to indicate the remarkable possibilities for the future if a tract like Mount Desert, unique upon our coast in physical configuration as in beauty, can be preserved from the destruction of its natural charm by the judicious guarding of what it now possesses and the re-introduction of what it has lost, or lost presumably, both plants and animals.

The fame of the island as the playground, habitual or occasional of a vast and highly intelligent portion of our population, also renders it remarkably appropriate for such a natural reservation; and should such a reservation be established there, with due emphasis laid upon the maintenance or redevelopment of natural and indigenous conditions, its influence upon the intelligent peoples of America will be indeed far-reaching. For it is inconceivable that lovers of nature could enjoy such an ideal area, with its unmolested wild flowers, ferns, birds and harmless animals and with the full beauty of nature everywhere displayed, without desiring and providing a similar blessing—according to the varied



A delightful water garden in the national park, formed by glacial erosion and later soil and peat deposit

opportunities that offer—for themselves, their children, and their children's children in other portions of the continent.

Professor Fernald wrote his plea for conservation of the Acadian flora through the establishment of plant sanctuaries upon Mount Desert Island—a place of extraordinary natural fitness for the purpose—before it was known whether or not the United States Government would accept the lands then offered it upon the Island for a national monument and park.

The warm interest of the Secretary of the Interior, the Hon. Franklin K. Lane, in a project which would extend the benefits of the National Parks Service to the great eastern section of the country, with its dense city populations, resulted in the establishment upon Mount Desert Island of the first national park area—war monuments apart—east of Arkansas. This monument initiates, accordingly, a new departure on the Government's part, a broadening of its policy for nature conservation and the establishment of recreation areas for its people amidst the older eastern country. And it is fitly chosen for such purpose, its grey granite mountains fronting the Acadian Seas traversed by the early voyagers and already annually visited in the sixteenth century by fishing fleets from Brittany. It is with that wild Breton coast, famous always for its hardy, fearless race of seamen, and with the Bay of Biscay shores behind which lay de Monts' and Champlain's boyhood homes that the history of eastern North America is first associated.

This early Acadian period of the first settlements it is that the Sieur de Monts National Monument is intended to commemorate historically. But, historic interest apart, as what Alexander von Humboldt first called, in his home tongue, a "Nature" monument, Mount Desert in its



Beaverdam Pool: A Plant as well as Bird sanctuary, fed by springs and singularly sheltered

own type and region stands supreme, not only exhibiting the boldest rock formations on our eastern coast, worn by the sea's attack and deep ice-sheet erosion, but also furnishing a uniquely favorable opportunity for Wild Gardens such as Professor Fernald writes of, Plant Sanctuaries preserving and exhibiting—so far as that is possible—in a single tract of concentrated plant and landscape interest the whole Acadian flora.

How rich this flora is in beautiful and interesting species yet capable of preservation no one knows who has not made, as he, a thorough study of the subject by personal investigation; nor how rapidly these species are diminishing. There is no other way to save its wild and woodland beauty, the infinite variety and interest of the native vegetation, but that which Professor Fernald urges—Wild Garden Sanctuaries wherein the ancient forest life of the Acadian region may still perpetuate itself and its plants grow on in their original environment, of leafy woodland shade or peaty meadow; and where their loveliness may give men pleasure always and not lead to their destruction.

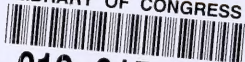
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